



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/574,382

03/31/2006

Erik Jonathan Nilsson

120803P001

2317

51340 7590 10/05/2009  
PELOQUIN, PLLC  
800 FIFTH AVENUE  
SUITE 4100  
SEATTLE, WA 98104-3100

EXAMINER

DEJONG, ERIC S

ART UNIT

PAPER NUMBER

1631

MAIL DATE

DELIVERY MODE

10/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,382	<b>Applicant(s)</b> NILSSON ET AL.	
	<b>Examiner</b> ERIC S. DEJONG	<b>Art Unit</b> 1631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____.                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                          |

## **DETAILED OFFICE ACTION**

Claims 1-53 are pending and are currently under examination.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-35 and 46-53 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The recent en banc decision regarding *Bilski v. Warsaw* (2008) set forth that a process is patent-eligible if (1) it is tied to a particular machine or apparatus or (2) it transforms a particular article into a different state or thing. Further, the recent decision in *Comiskey* (2009) confirmed the opinion set forth in *Bilski* of the prohibition pre-empting an abstract idea or mental process in a claim. The revised *Comiskey* decision further reiterated the precedent set forth in *Richman*, 563 F.2d 1026, 1030 (CCPA 1977) wherein the court held the application unpatentable because “if a claim [as a whole] is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory.”

In the instant case, the claims 1-27 and 32-35 are directed to a method comprising the abstract/computational of receiving data, cutting data, aligning data to form an n-dimensional data set, performing mathematical operations on and storing an

Art Unit: 1631

n-dimensional subregion of data elements from the n-dimensional set. The recited process does not involve any transformation of a particular article into a different state or thing, but rather only involves on data process steps directed to the abstract manipulation of data. Therefore, the examiner must determine if the instant claims are tied to a particular machine or apparatus. In the instant case, while the instant claims recite a storage step, said storing is considered insignificant post solution activity because the saving of an n-dimensional subregion of data elements does not affect on the process by which it was produced. Further, the instant claims do not recite any machine or apparatus elements that are required to perform the recited process. Therefore, the instant claims are directed to non-statutory subject matter.

Claims 28-31 are directed to a computer readable media having a data structure stored thereon comprising a first, second and third data field. In the instant claims, the data structure stored on computer readable media comprises only data, per se, which is non-functional descriptive material. As such, the claimed computer readable media does not confer any new functional or operational aspects to a computer that operated on the claimed computer readable media. Therefore, the instant claims are directed to non-functional descriptive material and is not statutory subject matter.

Claims 28-31 and 46-53 are directed to generic computer readable media. Upon review, the instant specification teaches that the recited computer readable media encompasses "any type of media suitable for storing electronic instructions" (see paragraph [0086] from the instant specification. As such, the instantly claimed media encompasses the embodiments of signals and carrier wave that are not statutory

Art Unit: 1631

subject matter, as set forth by the CAFC in the *In re Nuijten* decision (2007). It is further noted that independent claim 51, from which claims 52 and 53 depend, is directed an apparatus comprising a means for storing an n-dimensional data set and a means for performing mathematical operations. As set forth in the rejection under 35 USC 112, 2<sup>nd</sup> paragraph below, the instant specification does not provide a definition for the recited "means" in the instant claims that would limit recited "means" from encompassing embodiments that read only on a computer program, per se. Therefore, claims 51-53 are included under the basis of the instant rejection.

Claims 1-53 are rejected under 35 U.S.C. 101 because the claimed invention lacks patentable utility.

The instant claims are drawn to a method, and the related apparatus and computer readable media directed to receiving data from a measurement on a biological sample, cutting data, aligning data to form an n-dimensional data set, performing mathematical operations on and storing an n-dimensional subregion of data. In the instant case, the claims do not require nor act on any type of particular data nor are the claims limited to any particular biological sample, measurement technique, or mathematical operation. Further, practicing the claimed invention results only in obtaining an unspecified and generic set of n-dimensional subregion of data elements.

However, the instant claims do not recite any specific or substantial improvement the results form said set of n-dimensional subregion of data elements or how further

Art Unit: 1631

generic mathematical operations performed on said data elements would yield any new and useful information.

The Court of Patent and Appeals has stated:

"Practical utility is a shorthand way of attributing "real-world" value to claimed subject matter. In other words, one skilled in the art can use a claimed discovery in a manner which provides some immediate benefit to the public." A 'use' to do further research is not considered a utility which provides an "immediate benefit" to the public.

Examples of situations requiring further research to identify or reasonably confirm a "real world" context of use, and which do not have utility under 35 USC 101, as set forth in MPEP 2107.01.1, include:

- (A) Basic research such as studying the properties of the claimed product itself or the mechanisms in which the material is involved',
- (B) A method of treating an unspecified disease or condition,
- (C) A method of assaying for or identifying a material that itself has no specific and/or substantial utility,
- (D) A method of making a material that itself has no specific, substantial and credible utility, and
- (E) A claim to an intermediate product for use in making a final product that has no specific, substantial, and credible utility.

The instant claims encompass a method, and the related apparatus and computer readable media, of basic research drawn to manipulating unspecified data. The result of practicing the instant claims results in the generation of an unspecified n-dimensional subregion of data that has no specific or substantial utility. As noted in the utility guidelines (see Federal Register, December 21, 1999, Vol. 64, No. 244), basic research directed only towards potential properties (i.e. an unspecified n-dimensional sub region of data cut from an initial set of data, is an insubstantial utility (see page 6 of the Utility guideline training materials). Therefore, the instant claims do not have a specific or substantial utility.

Art Unit: 1631

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-53 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 51-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the instant case, claim 51, from which claims 52 and 53 depend, are directed to an apparatus comprising a means for storing an n-dimensional data set and a means for performing mathematical operations. Further, dependent claim 52 recites a “means for measuring the property of the biological sample. The recitation of means plus function language in a claim invokes 35 U.S.C. 112, sixth paragraph in order to determine the metes and bounds of the claimed invention. Regarding the use of means plus function limitations in a claim, MPEP §2181(II) states:

Art Unit: 1631

"35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus- function language "shall be construed to cover the corresponding structure...described in the specification and equivalents thereof." "If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112." In re Donaldson Co., 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994) (in banc)."

Upon review, , the instant disclosure is inadequate as it fails specify any structure corresponding to the means as instantly claimed. It is further noted that the recent CAFC decision in *Biomedino v. Waters Technology* (Fed. Cir. 2007) held that the structure must be disclosed in the specification even if one of skill in the art could implement a structure without such a disclosure. Therefore, the recited "means" causes the metes and bounds of the instant claims to be indefinite because there is no corresponding disclosure of what structures are encompassed by said means. Claims 52 and 53 are also included under this rejection due to their dependence from independent claim 51.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERIC S. DEJONG whose telephone number is (571)272-6099. The examiner can normally be reached on 8:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marjorie Moran can be reached on (571) 272-0720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for



Art Unit: 1631

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ERIC S. DEJONG/

Primary Examiner, Art Unit 1631